

JC17 Rec'd PCT/PTO 10/534239
06 MAY 2005

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A process for the production of hydrocarbons comprising:
 - a) subjecting a hydrocarbon feedstock to steam reforming by
 - i) dividing the feedstock into first and second streams,
 - ii) mixing the first stream with steam, passing the mixture of the first stream and steam over a catalyst disposed in heated tubes in a heat exchange reformer to form a primary reformed gas,
 - iii) forming a secondary reformer feed stream comprising the primary reformed gas and the second hydrocarbon stream,
 - iv) partially combusting the secondary reformer feed stream with an oxygen-containing gas and bringing the a resultant partially combusted gas towards equilibrium over a secondary reform catalyst to form a resultant secondary reformed gas, and
 - v) using the resultant secondary reformed gas to heat the tubes of the heat exchange reformer, thereby producing a partially cooled reformed gas,
 - b) further cooling the partially cooled reformed gas to below the dew point of the steam therein to condense water and separating condensed water to give a de-watered synthesis gas,
 - c) synthesising hydrocarbons from said de-watered synthesis gas by the Fischer-Tropsch reaction and separating at least some of the synthesised hydrocarbons, to give a tail gas, and
 - d) incorporating at least part of said tail gas into the secondary reformer feed stream before the partial combustion of thereof.
2. (Original) A process according to claim 1 wherein the second hydrocarbon stream comprises between 5 and 50% by volume of the hydrocarbon feedstock.

3. (Currently Amended) A process according to claim 1 ~~or claim 2~~ wherein carbon dioxide is separated from the synthesis gas prior to synthesis of the hydrocarbons and is added to the secondary reformer feed stream before the partial combustion thereof.
4. (Original) A process according to claim 3 wherein the tail gas and second hydrocarbon stream are combined and added to the primary reformed gas separately from the separated carbon dioxide.
5. (Currently Amended) A process according to ~~any one of claims 1 to 4~~ claim 1 wherein the de-watered synthesis gas is subjected to a step of hydrogen separation before it is passed to the Fischer-Tropsch hydrocarbon synthesis stage.
6. (Currently Amended) A process according to ~~any one of claims 1 to 5~~ claim 1 wherein the catalyst disposed in heated tubes in the heat exchange reformer comprises a nickel catalyst and/or a precious metal catalyst.